

DETERIORATION OF CONCRETE STRUCTURES IN THE ENVIRONMENT OF THE MIDDLE EAST.

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Abstract: Adverse geomorphic and climatic conditions as well as defective construction practices control concrete performance in the Arabian Gulf area. Condition surveys on structures located in Eastern Saudi Arabia show an alarming degree of deterioration within the short span of 10 to 15 years. Data show that this deterioration is attributable in decreasing order of importance to corrosion of reinforcement, sulfate attack, and environmental cracking. The mechanisms of these causal factors are discussed with respect to the environmental conditions of the Gulf coast.